1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

Awachinſkaya bay, almoſt oppoſite the *Kareemchin* fort, are two high mountains, one of which ſmokes almoſt continually, and ſometimes burns. 133

The breadth of the cape of *Kamtſchatka*, between the mouth of the *Keekſha* and the *Awachinſkaya* bay, meaſures from ſea to ſea, by a ſtrait line, only 255 verſts; a diſtance much leſs than that between the *Tegbil* and the *Kamtſchatka*.

There are a multitude of rivulets which fall into the Eaſtern Ocean between the mouth of the *Awatſcha* northward, and the river *Kamtſchatka*, and from that again to the *Anadir*; but being of ſmall note, we ſhall only remark any thing that may be curious relating to them; among which may be reckoned the mountain *Shupanoveſkaya*, ſo called from *Shupanova* a ſtream near which it ſtands. This mountain is a volcano, and has ſmoked at the top in ſeveral places for many years, and ſometimes rumbles, but does not flame. The *Camel's Throat*, a rivulet near this hill, is remarkable for the danger of its paſſage through a very narrow valley, between high and ſteep mountains, from whence the ſnow is apt to tumble upon the ſlighteſt accident, even, it is ſaid, from a ſtrong exertion of the voice; and, falling down in vaſt heaps, ſometimes buries paſſengers under it; for which reaſon the natives make it criminal to ſpeak aloud as they paſs through the valley: in other reſpects the road is very convenient. On the ſouth ſide of the river *Shopbead*, or *Shupanova*, near the ſea ſhore, are a great many pillars or rocks, which appear above water, and make its entrance very dangerous; a little beyond this to the ſouth is a bay, called *Nutzenoi*, ſurrounded by rocky mountains, about four verſts in length and breadth; and near it, about the head of a rivulet, called *Shenmeek*, are large wells of boiling water. Out of a mountain near theſe ſprings, in many places, proceeds a ſteam, and the bubbling of boiling water is heard, but no ſprings have made their way through yet, though there are conſiderable fiſſures here and there, and the ſteam iſſues forth with the ſame rapidity 133 823 784 133

1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

The channel between the *Kurilskaya Lopatka* and this iſland is 15 verſts in breadth; over which they paſs in ſmall boats, when the weather is fair, in three hours. This paſſage requires not only fair weather, but likewiſe a flowing tide. In the time of the ebb, the waves ſpread for ſome verſts, are rapid and white, and ſo large that even in calm weather they riſe two or three fathoms high. Both the Coſſacks and *Kuriles* have a ſuperſtitious awe and veneration for theſe waves; and when they row over them, offer them a ſacrifice by throwing chips made on purpoſe, imploring a ſafe paſſage; the pilots alſo uſe conjurations the whole way.

The ſecond *Kurilskoy* iſland, *Paromuſir*, is twice as large as the firſt. It lies north-eaſt and ſouth-weſt, and is ſeparated from the firſt by a channel two verſts broad, where one veſſel may lie in time of neceſſity, but not without danger, there being no proper place for anchorage: and if a veſſel parts from her anchor, ſhe will be in very great danger; for the ſhore here being ſteep and rocky, and the channel narrow, it is next to impoſſible for her to eſcape. There was a melancholy example of this in the year 1741, when one of our veſſels was caſt away here. This iſland is alſo mountainous, and has as many lakes and rivulets as *Schumtſchu*; and on both of them, there is no other timber than *Slanetz* and *Ernick* which are uſed by the inhabitants for fuel, and they build their huts of different kinds of wood which they find thrown on the ſhore by the waves from *America* and *Japan*; among theſe are ſometimes found pieces of ranfarn wood, of which ſeveral large one's were brought thence to me. The inhabitants of this iſland are right *Kuriles*, who came there from the iſland *Onneckoot*; but upon what account is not known. All affirm, that between the inhabitants of the two above-mentioned iſlands, and the moſt remote, commerce was formerly eſtabliſh-

l: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

This iſland conſiſts of one rocky ridge divided by many vallies lying north and ſouth; and the mountains are ſo high that, in fair weather, they may be perceived almoſt in the middle of the paſſage between the iſland and *Kamtſchatka*.

The natives of *Kamtſchatka* were of opinion for many years, that over-againſt the mouth of the *Kamtſchatka* there ought to be land; becauſe there was always the appearance of a fog or miſt there, let the horizon be ever ſo bright. The higheſt mountains here are not higher than two verſts perpendicular; the tops are covered for the thickneſs of half a foot with a common yellow clay; but below are hard yellow rocks. The *Stanovoy* ridge is hard and entire; and the mountains upon the ſides are ſeparated by vallies, through which run ſmall rivers on both ſides of the iſland. It is obſervable in this iſland, that the mouths of all the rivers lie either to the ſouth or to the north, and from their ſprings they either run ſouth-eaſt or north-weſt.

There are no plains near the principal ridge, except the ſea-ſhore, and even there are little mountains of half a verſt, or a verſt, in circumference. Such hills are obſerved near every rivulet, with this difference, that the flatter the capes are towards the ſea, the larger are the plains behind. The very ſame thing is alſo obſerved in the vallies: if they lie between high mountains, they are leſs, and the rivulets in them alſo ſmaller; but in thoſe vallies which are between low mountains, it is otherwiſe. On the *Stanovoy* or principal ridge, wherever the mountains are ſteep and full of cliffs, there are always found lakes half a verſt, or a verſt, from the ſea-ſhore, which run by ſmall outlets into the ſea.

The mountains conſiſt of one hard blue ſtone; but where they are parallel with the ſea, there the capes are made up of a ſtrong greyiſh clean ſtone, fit for poliſhing. This circumſtance the author eſteems worthy of obſervation, becauſe he imagines the ſtone might obtain this change from the ſea-water.

1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

133 bubbling of water is heard. Here I dug, expecting to find water; but I found a ſtratum of ſuch hard ſtone that we could not dig through it. It is probable that the waters of the warm brook, that falls into the Eaſtern Ocean, have their origin from this place, for it is directly oppoſite to the riſe of that brook: and the laſt ſtream that falls into the river *Shematche* is likewiſe thought to derive its ſource from the ſame place, as it riſes from this ridge, upon the weſt ſide, in a deep hollow, ſurrounded with ſmoking hills. The very bottom itſelf is full of boiling ſprings for near a verſt and a half; all which join at laſt in one ſtream.

In this bottom are two large wells, that deſerve particular notice; one is five, the other three fathoms' diameter; the firſt one and a half, the other one fathom deep. In theſe the water boils up with white bubbles, and makes ſuch a noiſe, that one perſon cannot hear another in the common way of ſpeaking; nay, ſcarcely when he cries aloud. The vapour is ſo thick, that one cannot ſee a man at ſeven fathoms' diſtance; and the boiling of the water is only to be obſerved by lying down upon the ground. The earth between theſe wells yields like a bog, ſo that one is in continual fear of ſinking in. The water of theſe ſprings is diſtinguiſhed from all others by a black matter, like *Chineſe* ink, that ſwims upon the top, which ſticks ſo to the fingers that one cannot without difficulty waſh it off. They have, in common with other hot ſprings, clay, lime, alum, and ſulphur, of various colours. In all the above-mentioned ſprings the water is thick, and ſtinks like rotten eggs.

778 The *Kamtſchadales* eſteem all the burning mountains, and places where hot ſprings ariſe, as the habitations of ſpirits, and approach them with fear; but, as the latter are the moſt dangerous, they are under the greateſt awe of them; and therefore they never willingly diſcover them to any *Ruſſian*, leſt they ſhould be obliged to accompany him near them. It was by chance that I heard of them after I had travelled 100 verſts from the

1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

the place; but this natural phænomenon appeared ſo curious that I returned to examine it. The people of *Shematchinſki* village were obliged to declare the true reaſon why they had not formerly diſcovered them, and much againſt their will were forced to ſhew me the place, but would not go near it: and when they ſaw that we lay in the water, drank it, and eat things boiled with it, they expected to ſee us periſh immediately; but when they ſaw this did not happen, they told it in the village as an uncommon wonder, and were aſſured that we muſt be very extraordinary people ſince even the devils could not hurt us.

This is remarkable, that north from the mouth of the river *Kamtſchatka*, and weſt along the coaſt of the river *Oſernoi*, there are no hot ſprings, although it abounds in *Pyrites*, ſulphur, iron ore, and ſtones that yield alum and vitriol. Mr. *Steller* obſerves, that the appearance of the country of *Kamtſchatka*, and the frequent earthquakes there, give reaſon to think that it is full of caverns replete with combuſtible matter, which taking fire in the bowels of the earth produces earthquakes, and makes thoſe vaſt alterations of which we ſee numerous inſtances in rocky ſhores being torn off both upon the *Beaver* ſea, and in the iſlands which lie between *Aſia* and *America*. The combuſtible matter, he tells us, is kindled by the ruſhing of the ſalt water into thoſe ſubterraneous caverns, through their apertures towards the ſea; which hypotheſis is ſtrengthened by his obſervation that the earthquakes are moſt frequent about the equinoxes, when the waves of the ſea are driven by the great ſtorms with uncommon violence upon the ſhores; and eſpecially about the ſpring equinox, at which time the water always riſes higher than at any other: and the inhabitants of *Kamtſchatka* and the *Kuriles* know this ſo well, that they always fear the beginning of *March* and the end of *September*.

It is very extraordinary, that no iron has been diſcovered here, although ſome ore is obſerved mixed with clay and earth, to which

5: Jochelson A-5 (1910-11) 1928 Kamchadal

172 (62) Not finished blade, evidently intended to be subsequently elaborated into an implement of a specialised type. It might also serve as a scraper. Of greatly silicified slate. Length, 98 mm.; greatest width, 50 mm.; greatest thickness, 28 mm. (3029). Text-figure 57.

(63) A scraper of dark gray flint; one side is flat with some chippings from one edge; the other side is regularly convex with broad chippings. The working edge is rounded. Length, 41 mm.; greatest width, 26 mm.; thickness 9 mm. (3075). Text-figure 58.

(64) A stone lamp of sandstone with an ear for tying it to the sledge or canoe when traveling or hunting. 4/9 natural size (3146). Text-figure 64.

(65) A stone lamp for the dwelling, of porphyrite, 1/3 natural size (3141). Text-figure 65.

133 As stated above, we left the Kuril Lake on August 16—a quiet calm day. We crossed the lake, on the right being the rocky almost triangular Alaid Island, 823 where millions of birds were crying and rioting. The Japanese writer R. Torii[1] refers to a Kurilian tradition, according to which in ancient times a high mountain rose where we have now the Kuril Lake. It was a handsome lady, and the neighboring summits, jealous of her, made her life unbearable by mockery and sneering, so she decided to leave Kamchatka and settled in the open sea. This became a small rocky island, Alaid (in Aino, Chachakotan), located to the northwest of the Paramushiri Island, and Kuril Lake formed in the cavity. Baron Dittmar refers to another variant of the Kamchadal tradition concerning the origin of the Kuril Lake. There was formerly a volcanic summit Alaid, which disliked its location and wandered over to the sea. In the cavity left by the mountain, the Kuril Lake originated. The mountain, however, left a piece of rock in the middle of the lake which the Kamchadal call Heart-Rock or Navel-Rock. Kuril Lake, according to Dittmar, is the second greatest lake of Kamchatka, Kronotzkoye Lake being larger.[2] Geologists explain the origin of the Kuril Lake by the sinking of an old crater. The lake now lies 200 meters above sea-level and its depth in some places reaches 300 meters.[3]

000 The trip back to the seashore took us less than a day. Our boats were speeding and leaping over the rocks of the stony bed of the Osernaya River so that we had to use poles as brakes in order not to be overturned, particularly on the dangerous curves. Hunters, who come in spring on dog sledges to the Kuril Lake to kill bears, make quite primitive boats of twig-frames covered with bear skins in order to transport skins to the mouth of the Osernaya River. These skin-boats easily glide over the rocky rapids.

As I feared, the Government steamer had left for Petropavlovsk a day before we reached the shore. It did not stop at Osernaya, passing from the western strait to Petropavlovsk through the Kuril Strait. The fall storms had begun in the Okhotsk Sea and it was dangerous for the steamer to approach the coast, which has no harbor. We might have had to remain in Osernaya for the winter if it had not been for the administrators of the saltery and cannery, who were waiting for a special steamer before closing the plants. They had already sent off on a freight steamer the imported laborers and salted and canned goods. On the next day the

[1] Torii, *Études Archéologiques et Ethnologiques: Les Aïno des Iles Kouriles*, Journal College of Science, Imperial University of Tokyo, vol. XLIII, Tokyo, 1910-1921, p. 39.

[2] Carl von Dittmar, *Travels and Sojourn in Kamchatka in 1851-1855*, Part I, St. Petersburg, 1901, p. 864 (in Russian).

[3] See *The Kamchatka Expedition of F. P. Rishenkhinsky*, Zoological Division, Part I; P. J. Schmidt, Moscow, 1916. *The Investigations of the Zoological Division in Kamchatka in 1909-1910*, Chapter XII, written by Dr. A. N. Dershavin, one of Professor Schmidt's assistants.

5: Jochelson A-5 (1910-11) 1928 Kamchadal

longed-for smoke of a steamer appeared on the horizon, but it cruised in the sea many miles away, as it was not safe to come near the shallow shore in the turbulent weather. After three days of waiting the storm subsided, the steamer came nearer and a large boat was despatched to take us aboard. High waves almost capsized the boat and finally did at a distance of a few feet from the shore. We saw with horror that the four sailors were covered by the boat, but in a moment they appeared from beneath it with the rope in their hands and dragged the boat to the shore. When they had dried themselves in one of the houses we trusted ourselves and our collection from Kuril Lake to the frail boat and after two hours of struggle with the sea we mounted the rope-ladder of the steamer. Never before have I had such a stormy sea passage. After 5 days of sickness, sailing through the Kuril Strait, we reached Petropavlovsk, which we left for Vladivostok several days later on the last mail steamer of the season. The following remarks concerning the finds made on the Kuril Lake and the form of sites discovered in Kamchatka in general are necessary.

From the remnants of objects of Japanese culture no inference can be made as to the age of the sites. As we saw before (see p. 62) Japanese objects, such as coins, pieces of porcelain cups and metallic artifacts, might have reached Kamchatka at a very early date. Krasheninnikoff says (I, p. 48) that the old Kamchadal knew the art of hammering fragments of metal. They did not temper iron but, placing it cold on a stone, forged it with another stone instead of a hammer. If the eye of a needle broke, they flattened the broken end and drilled a new eye with another needle.

According to Steller (p. 320), the Kamchadal paid homage to pieces of iron obtained from the Kurilians. The iron was set up on a pole in front of the dwelling as proof of the wealth and special importance of its owner. Krasheninnikoff also states (II, p. 97) that every Kamchadal possessing a fragment of iron was deemed rich and lucky.

The Kamchadal, now Russianized, no longer live in subterranean houses, replacing the same by Russian block houses, or by huts of the Yakut type, also introduced by the Russians. According to the descriptions of Krasheninnikoff and Steller, the ancient Kamchadal earth-hut had no entrance room such as the Koryak use in their underground dwellings during the summer. The Kamchadal earth-hut was only a winter dwelling. Its smoke hole in the ceiling served at the same time as a window and door, through which one entered by descending along a log with notches or holes. This was the only entrance opening, but there was, however, an underground passage in the shape of a narrow channel, for the draught, which started from the hearth and came out of the house at the side. Women, children and the so-called transformed men used to go in and out through this passage. From the illustrations of the excavated pits of ancient Kamchadal dwellings we see that the channel-passage was an indispensable part of their habitations, and we see also from illustrations that it could be directed to different cardinal points. We may only surmise the reasons for such a diversity. We know that many of

the Siberian tribes, for instance the Yakut and Buryat, have the entrance of their dwellings faced to the east, where the sun rises. The sun is regarded as a benevolent deity and it is advisable to have the door facing the sun in order to get its benefits. The back of the dwelling is turned to the west, the abode of evil spirits. The entrance of tents of nomadic peoples (Chukchee, Koryak, Tungus, Yukaghir and others) faces the east for the same reason. On the other hand the door of dwellings of maritime peoples faces the sea in order to give free access to sea-mammals, as though they were visitors. For the same reason the entrance of summer tents of Siberian fishers faces the river. According to Professor Petri the dwellings of the neolithic people of the Baikal region, the remnants of which he discovered, had entrances facing the south, the side of the sun's highest standing. Thus we can comprehend why the channel passage of the old Kamchadal dwelling faced, in some cases, the sea, in others the lake or a river in accordance with food, which one or another water basin supplied.

The shape of the pits was mostly oblong rectangular. On the Kuril Lake the pits were more or less quadrangular. The northern pits on the Kavran and Kulki Rivers were almost circular in form, thus nearing the shape of underground dwellings of the Koryak. The channel-passage is fitted in some cases to the middle of the oblong side of the pit and in others to the middle of the transverse side.

The largest pit, 34 by 30 feet, was excavated on the Nalacheva Cape and the smallest, 16 by 15 feet, on the Nalacheva Lake. The length of the channel passage ranges between 7 and 16 feet. With few exceptions, the channel-passage is longer, the larger the pit.

As the present remains of the pits of the former pit-dwellings are undoubtedly smaller than the former dwellings themselves, on account of earth and sand deposited by winds and accumulated mold from decayed grass, we may draw the conclusion that the ancient Kamchadal population was rather numerous and Kamchatka was densely inhabited. The pits are very near each other, and the shores of the Nalacheva Lake, as well as other places in Kamchatka, are covered with them. According to Krasheninnikoff, each pit-dwelling sheltered several related families. Often several pit-dwellings were located in one place, forming a village surrounded by earthen walls and trenches.

The Kamchadal pit-dwellings were used only during the winter. In the summer the Kamchadal lived in huts on piles several meters high. They were ascended by means of notched logs which could be drawn up to the platform of the huts. At present these elevated huts serve as storehouses. In some places, however, they are still used as summer dwellings (see Plate 4, B).[1]

In the pit excavated on the Osernaya River near the Kuril Lake, no traces of wooden posts were discovered. This may be regarded as a witness of the great age of the pit—the posts having decayed to such a degree that no trace of them is left.

[1] The summer pile-dwelling is also in use among the Gilyak but its posts are not so high as those of the Kamchadal pile-dwelling. The pile-dwelling, as an adoption from Siberia, is also reported from some places in Alaska (see H. P. Steensby, *An Anthropo-geographical Study of the Eskimo Culture*, p. 188). The storehouse on posts is known everywhere in Siberia, as well as in North America.

1. [Plate 4, A (not B) is a photograph of an elevated hut -- Analyst]

7:Lesseps T-3 (1787-88)1790 Kamchadal

177 The various conſtructions which M.
515 Kaſloff ordered for the greater convenience
757 of his eſtabliſhment, detained us two days
823 longer. Animated by a love of virtue and humanity, he enjoyed the pleaſure of having procured theſe ſalutary and pleaſant baths for his poor Kamtſchadales. The uninformed ſtate of their minds, or perhaps their indolence, would, without his ſuccour, have deprived them of this benefit, notwithſtanding their extreme confidence in theſe hot ſprings for the cure of a variety of dif-
312 eaſes*. This made M. Kaſloff deſirous of aſcertaining the properties of theſe waters; we agreed to analyſe them, by means of a proceſs which had been given him for this purpoſe. But before I ſpeak of the reſult of our experiments, it is neceſſary to tranſcribe the proceſs, in order the better to trace the mode we adopted.

* Formerly they dared not approach theſe ſprings, or any volcano, from the idea that they were the abode of evil ſpirits.

Water

[The Governor-General of Okhotsk and Kamchatka--Analyst]

22: Guillemard T-2 (1882) 1886 Kamchadal

823 We felt that we had got among friends once more, and managed by
133 the aid of all these luxuries to pass a very pleasant evening, in spite of the cold. At night the beacon flame of Kluchi, now brilliantly illuminating the clouds of smoke that hung around the crater, now sinking almost to extinction, shone out far above our heads. There was an angry look about the volcano, and we were told that its activity had of late been somewhat increased. The explanation was simple. The Kanuli, or Spirits of the Mountains, whose home is in the bowels of the volcanoes, had merely been more fortunate than usual. It is hardly necessary, in these days of omniscience, to explain that it is to these beings that all volcanic disturbances are due. They go to the sea at night to catch whales, which are their favourite food, and the roasting of several of these animals within the crater is, as may be imagined, an operation which requires the consumption of no inconsiderable amount of fuel.

000 The weather had become steadily colder from day to day, and as we turned out on the morning of the 11th September we regretted that the Spirits of the Mountains had not seen fit to do their cooking in closer proximity to our camp. Our moustaches were frozen to the blankets, and the water in the bucket inside our tent was a sheet of ice. Morning observations and photography are always interesting, but they are certainly best appreciated when the thermometer is well above freezing. The view from our camp was glorious, and the mountains, cloudless from base to summit, towered above us with the startling clearness of outline so characteristic of northern regions. Kojerevsky—a village of ten huts and
361 sixty-three inhabitants—lies at the foot of Uskovska, a mountain
133 of nearly 13,000 feet, whose summit from this aspect presents the appearance of a uniformly rounded dome of snow. It is in reality twenty-three miles off as the crow flies, but the giant scale on which Nature works in these regions belittles space to an extent that is inconceivable, until the hard facts of actual measurement are before one. A little farther to the south and east is Kluchi, whose sharp peak rises to a vertical height of 3¼ miles above the

2: Schrenck--895 E-5 (1854-1856) 1881-1895 RX2 Gilyak
Kamchadal RV3
Ainu ABG

/571 cont./

Ainu. Steller (1) and Krascheninnikof (2) expressly state that the

1. Beschr. von dem Lande Kamtschatka, p. 249, note a, and p. 320.

2. /Opis. zemli Kamchatki /Description of the Region of Kamchatka/" (Poln. sobr. uchen. putesh. po Rossii, Vol. II, p. 49).

first iron implements of the Kamchadal, which they knew and used even prior to the arrival of the Russians in their country, were large Japanese iron needles, and their Kamchadal name also points to this origin of them, for "sühse" (according to Steller) or "schisch" (according to Krascheninnikof), as I have pointed out above (3), only means "Japanese" after the designation for

3. See pp. 407-412 above.

the Japanese passed on to the Kamchadal by the Ainu of the Kurile Islands. The Kamchadal, as Steller further reports, knew how to do some forging on these needles, which they presumably learned from the same Ainu who had brought them the needles. For instance, if the eye of the needle broke off during use, they made it red-hot, gave it a form like its former and by hammering it with a stone, /572/ and bored another hole in it with the help of another needle. Likewise prior to the arrival of the Russians, they also received through the Kurile Ainu pieces of Japanese iron ore. They knew of no other use for these, however, than to fasten them, if, as Steller relates, they were about 2-3 inches long and had roughly the shape of a knife, to the tip of a pole and set this up in front of their houses as a symbol of great respect and wealth. It is certain that this esteem of the Kamchadal for such an insignificant and in itself quite useless thing for them was based on information from the Ainu that this was the material out of which the Stisan (Japanese), who in

K 823 A 439 823 186 A 439 435 G A K 439 17 325 A [131] [114] [113] G A K 174 325

/572 cont./

their eyes, of course, were surrounded with the aura of great wealth and esteem, made those knives, swords, and the like which they themselves (the Ainu) prized so highly and paid for so dearly in trade with them. How very much this was the case can be seen from Steller's information that the Kurile Ainu gladly gave 20 sea beavers for an old Japanese saber and thought that they had made a very good trade, but wore such sabers only on festive days or during festive processions and made "the strangest figures during the welcoming" with them.

For the moment it must remain undecided whether the above-mentioned iron needles, which came from Japan to the Kamchadal as their first iron implements, spread from the latter to their neighbors, the Koryak and the Chukchee, before iron was brought these peoples by the Russians. At any rate, three Paleo-Asiatic peoples, the Ainu, the Gilyak, and the Kamchadal, received iron from Japan, and this was a natural consequence of the geographical position of the latter in the vicinity of these peoples, for just to the north of Nippon, the principal island of Japan, is the island of Jesso, the principal region of the Ainu (1),

1. The view advanced chiefly by Ph. Siebold that the Ainu formerly also inhabited the north of Nippon (see above, p. 255) has recently been attacked by Brauns ("Die Bewohner des Japanischen Inselreichs /The Inhabitants of the Japanese Island-Realm/" in the Jahresber. des Frankfurter Vereins für Geogr. u. Statist., Years 48 and 49, 1883-1884, 1884-1885, Scientific Part, pp. 5 ff).

which, in turn, on the one hand, leads to the half-Gilyak Sakhalin, and, on the other hand, via the chain of the Kuriles, to Kamchatka. One may therefore draw the further conclusion that at the time when these peoples lived farther in the interior